MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2022/2023

BUE3014 – URBAN ECONOMICS

(All sections / Groups)

2 OCTOBER 2023
9:00a.m. – 11:00a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **THREE (3)** printed pages with **FOUR (4)** structured questions including the cover page.
2. Marks are shown at the end of each question.
3. Write all your answers in the answer booklet provided.
4. Answer all questions.

QUESTION ONE (25 MARKS)

(a) Evidence the relationship between labour's accessibility (location), wages, and the 'willingness to pay for office space' in widely dispersed residences versus concentrated residences.

(11 marks)

(b) Assess how stairs and elevators differ in terms of intrabuilding travel costs, altitude amenities, and the effects on the slope of the willingness to pay for land.

(14 marks)

QUESTION TWO (25 MARKS)

(a) A household located at x = 20km from Kuala Lumpur has the occupant paying an annual rent of \$12,000 for a standard dwelling. The annual non-land cost per dwelling is \$6,000, and there are 10 dwellings per hectare. The annual interest rate is 5%.

(i) Compute the willingness to pay for land per hectare per year, where $x = 20$.

(5 marks)

(ii) Suppose the location is shifted to $x = 16$. Demonstrate how computations will change and which variable will be using:

A. A larger value?

(4 marks)

B. A smaller value?

(2 marks)

C. Same value?

(2 marks)

(b) Assess **SIX (6)** observations regarding of subcenters in the metropolitan economy.

(12 marks)

Continued...

QUESTION THREE (25 MARKS)

(a) Assess the factors that contributed to the decentralisation of population over the last several decades.

(12 marks)

(b) Suppose $m = 0.025$ (an additional vehicle increases the travel time of each other user by 0.025 minutes), $v = 1500$ (there are 1500 other users), and $c = \$0.10$ (the opportunity cost of travel time is \$0.10 per minute).
Solve for the **Marginal External Cost (MVC)**.

(5 marks)

(c) Assess the difference between a commuter trip by bus and a trip by car based on the **THREE (3)** components of travel.

(8 marks)

QUESTION FOUR (25 MARKS)

(a) Consider the following information for a public park

- Marginal social cost is constant at RM 66 for the public park.
- Marginal social benefit is **RM 90 at 0 acres**, and **RM 66 at 20 acres** of public park.

There are three citizens in the city where the park is located, as follows: -

- Lennon, whose marginal benefit is worth RM15 at 20 acres of public park.
- Maimun, whose marginal benefit is worth RM20 at 20 acres of public park.
- Harshini, whose marginal benefit is worth RM32 at 20 acres of public park.

(i) Show the efficient quantity of public park in a graph consisting of all the marginal benefit curves and overall marginal cost curve.

(10 marks)

(ii) Illustrate the quantity of a Lindahl Tax paid by each of the three individuals for a public park in the graph drawn in (i)

(5 marks)

(b) Demonstrate the relationship between land with high fertility and willingness to pay WTP) based on the Leftover Principle with a graph consisting of Marginal Revenue curve at P*, Marginal Cost curve and Average Cost Curve, with Quantity on the *x*-axis and ringgit value (RM) on the y-axis. Show the average cost at the profit-maximising output of q*.

(10 marks)

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